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MCS-022

**BACHELOR OF COMPUTER
APPLICATIONS/MASTER OF
COMPUTER APPLICATIONS (REVISED)
(BCA/MCA)**

Term-End Examination

December, 2025

**MCS-022 : OPERATING SYSTEM CONCEPTS
AND NETWORKING MANAGEMENT**

Time : 3 Hours

Maximum Marks : 100

Weightage : 75%

***Note :** Question No. 1 is compulsory. Attempt
any **three** questions from the rest.*

1. (a) (i) You are logged in on a computer called “mycomputer” on a Windows 2000 machine. There is another computer on the network called “theircomputer”. A folder called D:/common/teamproject is present on “theircomputer” to which you have access with a password. How will you map this folder to a drive letter Z : on your computer such that you have to explicitly logon to it every time you logon to “mycomputer” ? 2
- (ii) Write the Linux command to see the files in a directory and append a "/" in the output to the name of every file that is itself a directory. 2

- (iii) List any *five* system folders in Windows 2000. 2
- (iv) What is a NULL connection in Windows 2000 and what risk does it pose to security ? 2
- (v) List the different types of Architecture Driven and Application Driven operating systems. 2
- (b) What is a firewall ? Describe the working of a packet switching firewall and that of a proxy server. 2+8
- (c) Explain the function and working of the File Transfer Protocol (FTP). 10
- (d) What are the important psychological considerations in designing a Graphical

User Interface for a software application ? Explain clearly the guiding principles on which each factor is based. 10

2. (a) Explain the algorithm used for page replacement for managing memory in Linux. 5
- (b) Describe how buffering and spooling attempt to improve CPU utilization. 4
- (c) Describe the system calls used by a program that copies one file to another on a computer. 5
- (d) List and explain each of the structures in the 6 layered “THE” operating system. 6

3. (a) Explain the meaning of read, write and execute permissions in Linux on a file and on a directory. 6
- (b) Describe how auditing in Windows 2000 helps in maintaining a secure computer environment. 4
- (c) What is security risk analysis ? Explain the *three* major steps involved in conducting it. 10
4. (a) What is the function of a modem ? Briefly describe the different types of modems. What are the distinguishing features of modems ? 10
- (b) Explain the concept of domains in Windows 2000. What are their advantages ? Briefly describe each of the elements of the logical structure of a domain. 10

5. Write short notes on the following : 5×4=20

- (a) Dialog Boxes in Windows 2000
- (b) File Management Subsystem in Linux
- (c) User Groups in Windows 2000
- (d) Printer Management in Windows
- (e) Symmetric Multiprocessing

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